### I. ISSUE TOPIC

Insofar as a flow related impairment is "pollution" suitable for assessment in the Integrated Report, clearer guidance on the methodology to assess flow impairments, particularly in the absence of adopted flow criteria and consistent historical flow data. In addition a discussion of the scientific and technical rationale to justify placement of a flow-impaired water into Category 4c.

### II. ISSUE STATEMENT

The existing guidance from the 2006 memo is unclear on the correct application of Category 4c. The memo defines Category 4c as a use being impaired, but the impairment is not caused by a pollutant. The memo further states, "Segments should be placed in Category 4c when the states demonstrates that the failure to meet an applicable water quality standard is not caused by a pollutant, but instead is caused by other types of pollution...Examples of circumstances when an impaired segment may be placed in Category 4c include segments impaired **solely** due to lack of adequate flow or to stream channelization." This could be interpreted to mean that waterbody segments **ONLY** affected by pollution should be included under Category 4c. There is also a significant lack of guidance on how to approach potential flow related impairments within the 303(d)/305(b) framework and if it is in fact appropriate to do so with a lack of adequate criteria and consistent historical flow data.

# III. EXISTING GUIDANCE

- i) Guidance for 2006 Assessment.
- ii) The existing guidance, at Section V.G.3 (p. 56) states:

"Which segments should states include in Category 4c?

Segments should be placed in Category 4c when the states demonstrates that the failure to meet an applicable water quality standard is not caused by a pollutant, but instead is caused by other types of pollution. Segments placed in Category 4c do not require the development of a TMDL. Pollution, as defined by the CWA is 'the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water' (section 502(19)). In some cases, the pollution is caused by the presence of a pollutant and a TMDL is required. In other cases, pollution does not result from a pollutant and a TMDL is not required. States should schedule these segments for monitoring to confirm that there continues to be no pollutant associated with the failure to meet the water quality standard and to support water quality management actions necessary to address the cause(s) of the impairment. Examples of circumstances where an impaired segment may be placed in Category 4c include segments impaired solely due to lack of adequate flow or to stream channelization. EPA encourages the state to collect or assemble additional data and/or information to verify the initial placement of the segment, and to re-categorize the segment based on the assessment of the additional data and/or information where appropriate."

The existing guidance, at Section V.G (p. 57) states:

"A segment that is included in Category 5 may also be included in other categories where appropriate."

## IV. PROPOSED RECOMMENDATION

- i) Clarify EPA's expectation of states to list for flow impairment when the source of the impairment is not caused by a pollutant.
- ii) Explain the function of placement in Category 4c (i.e., is it similar to placement in Categories 4a and 4b in that placement in Category 4c identifies a continued impairment that does not require the development of a TMDL?).
- iii) Provide guidance on whether placement in Category 4c is exclusive. In specific cases where adequate flows may be lacking, actual pollutants like water temperature and sedimentation are almost always also causing the impairment of COLD and WILD beneficial uses and the impairment is placed in Category 5. In these cases, provide guidance and rationale as to whether placement in Category 4c and 5 is appropriate.
- iv) Provide a discussion of the scientific and technical rationale to justify placement of a flow-impaired water in Category 4c. Placement in Category 4c pertains to standards not being met due to pollution. That is, states should evaluate whether designated uses are supported and criteria are being met. Describe the analytical approach that would justify placement in 4c where the designated use is not impaired by a pollutant but likely flow, but no flow criterion (narrative or numeric) exists for the waterbody.

# V. IMPLICATATIONS

Clarify the appropriate method to address impaired flows via the 303(d)/305(b) process. This is an extremely important topic in California garnering significant traction that is being exacerbated due to drought conditions and declining native salmonid stocks. How have other states dealt with this issue and what benefits/costs, if any, have come from including altered flows as part of the Integrated Report? Should flow instead be incorporated as a contributing factor to the actual pollutant listings (temperature, sediment etc.) under Category 5? Should flow alterations be addressed by the Integrated Report at all since it is a clear Water Rights issue?

### VI. SUBMITTER INFORMATION

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